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Market Orientation, Competitive Aggressiveness, and Firm Performance

An Empirical Study

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Axel Juslin
Aalto University School of Business
Department of Marketing

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Author Axel Juslin

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Thesis advisor(s) Henrikki Tikkanen, Juho-Petteri Huhtala

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Abstract

Research in competitive dynamics has largely pertained to the series of competitive moves initiated by a firm to either retaliate or engage rivals to improve market position relative to competitors. In spite of the richness of literature, numerous of gaps remain in the stream of research, particularly in regard to the understanding of how a firm's continuous creation of superior customer value contributes to competitive dynamics research. This study endeavors to address this gap by investigating the moderating effect of market orientation on the relationship between competitive aggressiveness and firm performance. Drawing upon Narver & Slater's (1990) perspective of market orientation that underscores the importance cultural dimensions in the creation of superior customer value, this paper proposes that market orientation strengthens the relationship between competitive behaviour and firm performance, as market oriented firms possess superior knowledge to exploit more opportunities compared to competitors and are better equipped to defend market position against rivals.

An empirical research is employed to investigate the hypothesized relationships among market orientation, competitive aggressiveness, and firm performance. The data were collected from three sets of survey data administered in 2014, 2016, and 2018 (n = 2008) targeting top management members in Finnish firms with over five employees. The proposed theoretical model of the research was validated with a Confirmatory Factor Analysis (CFA) and the hypothesized relationships were tested with a series of Structural Equation Model (SEM) analyses.

Although the results of the study reveal that the direct effect of competitive aggressiveness on financial performance was significant and that market orientation positively influences the relationship between competitive aggressiveness and firm performance, these results were highly contextual in regard to firm size, market position, and market focus.

The paper has three main contributions. First, although extant literature has examined the effect of competitive aggressiveness on firm performance, most of these studies have been limited to a single industry, leveraging U.S. centric data samples. This research brings the conversation to the Finnish context, examining firms across various industries, shedding light into a relatively unexplored context in competitive dynamics. Second, this research demonstrates the positive moderating role of market orientation between competitive aggressiveness and firm performance, and responds to calls to integrate market orientation within broader models in strategic management literature. Third, the research extends studies in the field of competitive dynamics by examining robustness of findings in regard to an organization's market focus, size, and market position.

Keywords Competitive Aggressiveness, Competitive Dynamics, Market Orientation, Firm Performance

Contents

1. INTRODUCTION

Research in competitive dynamics has largely pertained to the series of competitive moves initiated by a firm to either retaliate or engage rivals to improve market position relative to competitors (Chen & Miller, 2012; Smith et al, 1991; Smith et al, 2001; Hutzschenreuter and Israel, 2009). Derived from the prominent Austrian view of markets as disequilibrium systems and Schumpeter's (1942) theory of creative destruction, studies on competitive dynamics have highlighted the imperative nature of "entrepreneurial discovery", that is, the successful directing of resources towards initiatives that satisfy customer needs when market opportunities emerge (Hayek, 1945; Jacobson, 1992; Smith et al, 2001). According to this rationale, firms that are able to successfully leverage entrepreneurial discovery to satisfy new consumer needs enjoy first mover advantages, benefiting from transient monopoly status and supernormal profits due to the lag in response by competitors (Porter, 1980; Nadkarni et al, 2016; Smith et al, 2001). The fundamental premise is that firms that are able to deliver superior customer value in a novel way generate temporary competitive advantages that induce superior performance.

Prior literature on the subject has focused on investigating the probability and speed of rival reactions to numerous competitive moves, and the series of competitive actions taken by firms to improve their market positions (Chen & Miller, 2012; Hutzschenreuter & Israel, 2009). For example, studies have researched new product launches (Chen et al, 1992; Kuester et al, 1999), pricing strategy and advertising (Smith et al, 2001), and reactions to disruptive innovations (Charitou & Markides, 2003). Recently, competitive dynamics researchers have started examining the antecedents and organizational performance results of competitive behavior (Luoma, 2013), exploring temporal depth (Nadkarni et al, 2016) time delays (Luoma et al, 2017), repertoires (Miller and Chen, 1996), and strategic consistency within organizations (Lamberg et al, 2009). The research suggests that firms that make more aggressive moves (greater number of competitive actions), more complex moves, more unpredictable moves, and moves that considerably delay rival reactions, lead to improved organizational performance (Chen, Katila, and McDonald, 2010; Smith, Ferrier, and Grimm, 2001; Young, Smith, and Grimm, 1996). Other researchers highlight the specific characteristics of the environments firms operate in, arguing competitive advantage is most likely to be transient and dependent on the external market characteristics (Chen, Katila, McDonald, 2010; Ferrier, 2001, Nadkarni et al, 2016).

In spite of the richness of literature in competitive dynamics, numerous of gaps remain in the stream of research, particularly in regard to the understanding of how a firm's continuous creation of superior customer value contributes to competitive dynamics research. Specially, the gap relates to the insufficient knowledge of how market orientation influences the relationship between competitive behavior and firm performance. This becomes particularly imperative as researchers of competitive dynamics have long recognized the importance of a firm's ability to creatively introduce new products and services that satisfy customer needs to enhance profits, create competitive advantages, and capture market position (Chen & Miller, 2012; Chen et al, 1999; Smith, Ferrier, and Ndofor, 2001; Smith, Ferrier, and Grimm, 2001; Young, Smith, and Grimm, 1996). Despite this, little is known how a market-oriented business culture contributes to a firm's ability to successfully engage rivals with various competitive actions, and its consequent effect on organizational performance. Researching this could provide additional insights to essential questions in strategy research, for instance - how performance differences develop amongst organizations.

This study endeavors to address this particular gap by investigating the moderating effect of market orientation on the relationship between competitive aggressiveness and firm performance. The prevalent body of prior research has examined how aggressive firms are able to improve profitability and market position through greater action speed and volume (Chen, Lin, and Michel, 2010; Chen & Miller, 2012; Ferrier, Smith, and Grimm, 1999; Smith, Ferrier, and Ndofor, 2001) and some studies have suggested that this effect could be more prominent in fast changing environments compared to slow changing environments (Chen, Katila, and McDonald, 2010). Drawing upon Narver & Slater's (1990) perspective of market orientation that underscores the importance cultural dimensions in the creation of superior customer value, this research proposes that market orientation strengthens the relationship between competitive behavior and firm performance, as market oriented firms possess superior knowledge to exploit more opportunities compared to competitors and are better equipped to defend market position against rivals. Although the effects of market orientation has been extensively researched in marketing literature (see Kirca et al, 2005) it has been noticeably missing from the field of competitive dynamics (Huhtala et al, 2016; Johnson et al, 2011; Morgan, 2012).

This paper has three main contributions. First, although extant literature has examined the effect of competitive aggressiveness on firm performance, most of these studies have been limited to a single industry, predominantly leveraging U.S. centric data samples (Chen & Miller, 2012; Giachetti, 2016; Smith, Ferrier, Ndofor, 2001) making generalizability of results questionable. Furthermore, researchers have argued for the need to explore the applicability of competitive dynamics concepts in economies with different cultures and histories (Chen et al, 2010b). This research attempts to address these issues by bringing the conversation to the Finnish context and analyzing firms across various industries, shedding light into a relatively unexplored context in competitive dynamics research (Huhtala et al (2016) and Lamberg et al (2009) being some of the few studies that have explored competitive dynamics with relation to Finnish companies). Being a fairly small country of roughly 5,5 million inhabitants and heavily reliant on foreign trade, Finland's competitive environment has been ranked 11th highest in the World Economic Forum's (2018) Global Competitive Index, consistently being ranked in the top 10 in the survey (World Economic Forum, 2019). Furthermore, when compared to the U.S. markets, the Finnish economy also differs significantly in cultural dimensions (Hofstede, 2009), which could affect how organizations approach rivalry (Chen et al, 2012). Given this, the Finnish context makes an interesting context for researching competitive aggressiveness and market orientation.

Second, this research explicates the positive moderating role of market orientation between competitive aggressiveness and firm performance, responding to calls to integrate market orientation within broader models in strategic management literature (Grinstein, 2008; Hult, Ketchen, and Slater, 2005). A review of market orientation literature has suggested that most previous studies have focused on studying the direct effect of market orientation on firm performance, leaving a noteworthy gap in the literature in combining market orientation with other strategic orientations (Grinstein, 2008). Indeed, most of the papers that have focused on joining market orientation with other strategic orientations have integrated it with innovation orientation (Huhtala, 2014; Jaakkola et al, 2010), learning orientation (Baker & Sinkula, 1999; Slater & Narver, 1995) and entrepreneurial orientation (Atuahene-Gima & Ko, 2001; Boso et al, 2013), leaving plenty of room to explore other integrations (Grinstein, 2008). In addition to this, while scholars in competitive dynamics have examined the interplay of competitive aggressiveness with numerous other contexts, for example, hypercompetitive environments (Chen, 2010b), executive temporal depth (Nadkarni et al, 2016), top management team heterogeneity (Ferrier, et al, 2002), and even human resource management practices (Gardner, 2005), the integration between competitive aggressiveness and market orientation is missing. Researching this could not only provide additional insights to understanding the influence of market orientated culture on competitive behavior but also to broader questions in strategy research, such as how performance differences develop amongst organizations.

Third, this research contributes to studies in the field of competitive dynamics by examining robustness of findings in regard to an organization's market focus, size, and market position across various industries. While some researchers have argued that competitive aggressive strategies will regularly lead to superior firm performance, as market competition causes a firm's position to be temporary in the competitive market, other scholars emphasize that the relation between aggressiveness and performance is mostly context dependent (Chen et al, 2010b; Hutzschenreuter & Israel, 2009). In spite of this, with the exceptions of Chen and Hamrick (1995), Gordon et al. (2000), and Barnett & McKendrick, (2004), few studies have specifically explored how a firm's organizational structure and industry focus relate to competitive aggressiveness and its subsequent effect on financial performance. Exploring this increases our understanding on how a firm's market focus, size, and market position contribute to a firm's competitive behavior and how it relates to firm performance.

2. THEORETICAL BACKGROUND

2.1 Three streams in competitive dynamics research

Competitive dynamics literature identifies three larger streams of research areas that are used to characterize the strategies that may create competitive advantages for focal firms. The first set of literature examines the specific characteristics of the environments firms operate in, arguing competitive advantage is transient and dependent on the external market characteristics (Chen, Katila, McDonald, 2010; Ferrier, 2001, Nadkarni et al, 2016). This view is primarily derived from the Austrian school of economics and based on the premise that changing industry structures cause a firm's position to be temporary in the competitive market (Nadkarni et al, 2016; Smith, Ferrier, Ndofor, 2001). Advantages are viewed as transient, where firm specific advantages are rapidly constructed and destroyed, creating a continuous condition of disequilibrium (D'Aveni, 1994; D'Aveni, 1999). Consequently, environmental forces define specific temporal opportunities for firms to exploit advantages, diminish the advantages of rivals, and retaliate against competitor actions (Davis et al, 2009; Katila, Chen, and Piezunka, 2012, Nadkarni et al, 2016). Authors in this stream of research have investigated the features of the environment that influence the generation of temporal competitive advantage, such as hypercompetition (Chen, Katila, McDonald, 2010; D'Aveni et al, 2010). Indeed, empirical research suggests that firms operating in high-velocity environments achieve superior performance by executing rapid and frequent competitive actions (Chen & Miller, 1994; Chen, Katila, McDonald, 2010; D'Aveni, 1994).

The second stream of research examines the specific competitive moves initiated by an individual firm to either retaliate or engage rivals to improve its position relative to competitors (Chen & Miller, 2012; Hutzschenreuter & Israel, 2009). Rather than viewing competition as a static market outcome, this literature highlights the continuous interplay of actions and reactions, interdependence amongst competitors, and firm performance (Katila, Chen, and Piezunka, 2012; Smith, Ferrier, Ndofor, 2001). Competitive moves initiated by a firm pursuing opportunities can create competitive advantages for the focal firm, which then prompts a response from competitors who endeavor to diminish the new advantages gained (Smith, Ferrier, Ndofor, 2001). Models such as the awareness-motivation-capability (AMC) framework have been used to examine and predict the potential reactions from rivals, arguing that a competitor will not retaliate against an action unless it is first aware of the action, motivated to retaliate, and capable of reacting (Chen, 2012; Grimm, Lee, and Smith, 2006). Researchers in this stream have investigated new product launches (Chen et al, 1992; Kuester et al, 1999), pricing strategy and advertising (Smith et al, 2001), and reactions to disruptive innovations (Charitou & Markides, 2003).

The final stream of research, where this research sits in, studies the influence of organizational characteristics on a firm's probability to engage in competitive behavior. This view examines the various organizational contingencies that have an effect on firm competitive strategy and its subsequent relationship on organizational performance (Hutzschenreuter and Israel, 2009). Rather than investigating the series of competitive moves in isolation, this stream argues that the characteristics of an organization play a significant part in the success or failure of a particular action or reaction (Barnett & Hansen, 1996; Derfus et al, 2008; Hutzschenreuter and Israel, 2009). For example, studies have highlighted the importance of overcoming strict decision-making systems (Hannan & Freeman, 1984) and organizational routines (McKinley, 1992) to decrease inertia and thereby increase the likelihood of a successful competitive strategy (Hutzschenreuter and Israel, 2009). Moreover, empirical research has studied the effect of organizational size in influencing competitive behavior, with some scholars arguing that this is the "…single most important characteristic determining an organization's competitiveness" (Barnett & McKendrick, 2004, pp. 535). Other researchers have looked at the Top Management Team (TMT) characteristics (Nadkarni et al, 2016; Ferrier et al, 1996), the influence of the board of directors (Golden & Zajac, 2001), and organizational learning (Barnett & Hansen, 1996).

In spite of these important insights, plenty of unexplored questions remain. Firstly, while there has been various studies that have researched organizational contingencies and their effect on competitive behavior, there is little knowledge into the influence of market orientation on the relationship between competitive behavior and firm performance. Researching this could not only provide additional insights to understanding the influence of market orientated culture on competitive behavior but also to broader questions in strategy research, such as how performance differences develop amongst organizations. In addition to this, a growing number of scholars have also recognized the increasing need to integrate the concept of market orientation within broader models in strategic management literature (Grinstein, 2008; Hult, Ketchen, and Slater, 2005).

2.2 Competitive Aggressiveness

Understanding the particular circumstances that engender firm rivalry and their subsequent effect on organizational financial performance has been an important topic in the field of competitive dynamics. This area of interest has largely fallen into the third stream of competitive dynamics research, where scholars have examined organizational contingencies that have an effect on firm competitive strategy and its subsequent relationship on organizational performance (Hutzschenreuter and Israel, 2009). Here, researchers have highlighted the imperative nature of competitive aggressiveness in inducing interfirm rivalry and examined its relationship on firm performance (Nadkarni et al, 2016; Smith et al, 2001). Competitive aggressiveness reflects the degree in which an organization engages fiercely with competitors through a series of competitive actions, in order to aggressively combat rivals and to respond to competitor threats (Chen et al, 2010b, Nadkarni et al, 2016, Yu, Subramaniam, Cannella, 2009). Indeed, competitive aggressive behavior is strongly associated with threats enacted by rivals and battles for existing consumers, rather than solely focusing on market expansion (Stambaugh et al, 2011). The various action repertories form the basis of competitive aggressiveness and contribute to the holistic understanding of actions organizations take in competing with one another (Chen et al, 2010b; Nakdarni et al 2016). The ultimate aim of adopting competitive aggressive behavior and intensely challenging rivals is to either achieve new market entry or improve the organization's market position, i.e. outperforming competitors in a firm's given industry (Lumpkin & Dess, 1996; Smith et al, 2001).

Prior literature has argued that competitive aggressive firms have been able to gain first mover advantages by continuously exploring new ways to satisfy customer needs, exploiting a greater number of opportunities compared to rivals, and diminishing the effectiveness of competitor actions by launching timely responses to defend market positions (Chen & MacMillian, 1992; Ferrier et al, 1999; Nadkarni et al, 2016; Young et al, 1999). Research suggests that firms that execute a larger number of competitive actions over a given period of time compared to rivals, experience greater profitability (Ferrier, 1999; Young et al, 1999), while greater response speed has been positively associated with firm performance (Smith et al, 2001). Recently, Chen et al. (2010b) has found that these effects might be more prevalent in fast moving hypercompetitive environments, when compared to slower moving environments. Competitive aggressiveness has also been associated with an organization's tendency to adopt unconventional strategies when competing with rivals, rather than relying on conventional methods of competition (Ferrier, 2001; Lumpkin & Dess, 1996). For example, studies suggest that attack unpredictability leads to increased firm performance (Ferrier, 2001) while new entrants can challenge market leaders by being similarly unconventional (Cooper et al, 1986).

In spite of this, two items in particular have emerged in the literature as integral variables in the formulation of competitive aggressiveness – action speed and action volume (number of competitive actions) (Chen et al, 2010b; Smith et al, 2001). The inclusion of action speed is primarily based upon the Austrian view of markets as disequilibrium systems, whereby changing industry structures cause a firm's position to be temporary in the competitive market (Nadkarni et al, 2016; Smith, Ferrier, Ndofor, 2001). Advantages are viewed as transient, where firm specific advantages are rapidly constructed and destroyed, creating a continuous condition of disequilibrium (D'Aveni, 1994; D'Aveni, 1999) and limited windows of opportunity to exploit opportunities (Nadkarni et al, 2016). Firms need to quickly align their competitive actions with these windows of opportunities to succeed in the marketplace (Smith, Ferrier, Ndofor, 2001). Action volume, on the other hand, refers to the number of competitive actions executed by an organization in a given period of time (Ferrier, 2001) and rests on the notion of "entrepreneurial discovery", that is, the successful directing of resources towards initiatives that satisfy customer needs when market opportunities emerge (Hayek, 1945; Jacobson, 1992; Smith et al, 2001). The more competitive actions a firm undertakes, the more likely it is able to create superior customer value in a novel way that generates temporary competitive advantages (Ferrier et al, 1999; Gyawali et al, 2010; Porter, 1980). Taken together, action speed and action volume are "…essential for revealing the nuance of hypercompetition and temporary advantage" (Chen et al, 2010b, pp. 1413) and represent a detailed view of micro level firm behavior.

Despite the fact there has been deep rooted interest in examining the effect of competitive aggressiveness on firm performance (e.g. Ferrier, 2001), it has been argued that most studies in competitive dynamics literature have been limited to a single industry, mostly leveraging U.S. centric data samples (Chen & Miller, 2012; Smith, Ferrier, Ndofor, 2001). Furthermore, researchers have argued for the need to explore the applicability of competitive dynamics concepts in economies with different cultures and histories (Chen et al, 2010a). This research attempts to bring the conversation to the Finnish context and analyzes firms across various industries, and hence, sheds light into a relatively unexplored context in competitive dynamics research.

2.3 Market Orientation

Market orientation is a fundamental concept in marketing literature that assumes that an organizational culture tailored towards value creation for customers drives organizational profitability (Gebhardt, Carpenter, and Sherry, 2006; Narver and Slater, 1990). In its essence, market orientation argues in placing the uppermost focus in building and preserving exceptional customer value by remaining near one's customer, while also disseminating gathered information systematically across all areas within the organization (Slater & Narver, 1995; Slater & Narver, 1998; Zhou et al, 2008). It has recently become gradually more relevant to researchers in numerous other fields, such as in management literature (Kirca et al, 2005), and scholars have begun to recognize its important role for organizational performance (Collins et al, 1994; Kirca et al, 2005; Morgan et al, 2009). Market orientation literature has diverged into prevalent two schools of thought (Homburg & Pflesser, 2000), adopting either a cultural (Narver & Slater, 1990) or behavioral (Kohli & Jaworski 1990) perspective. While the behavioral perspective outlined by Kohli and Jawkorski (1990) outlines specific firm activities that focuses on the generation and dissemination of market intelligence and responsiveness (Farrell, 2005), the cultural view concentrates on organizational norms that facilitate the adoption of market-orientated behaviors (Kirca et al, 2005; Narver & Slater, 1990). Regardless of the orientation taken, numerous similarities appear between the two perspectives, such as a strong customer focus, shared information, and an overall coordination between departments on various marketing activities (Lafferty & Hult, 2001).

This paper adopts Narver and Slater's (1990) cultural perspective of market orientation, as it endeavors to understand the cultural characteristics that influence the relationship between competitive aggressiveness and firm performance. The authors define it as "the business culture that most effectively and efficiently creates necessary behaviors for the creation of superior value for buyers and thus, continues superior performance for the business" (Narver & Slater, 1990, pp. 21). In this view, the organization's culture strives to constantly satisfy the present and latent needs of current and future customers, while also understanding the capabilities and strengths of their competitors (Narver & Slater, 1990). Moreover, market-oriented firms also possess the necessary skills to transform the gathered information from the marketplace into strategic capabilities and actions (Noble et al, 2002).

Narver & Slater (1990) break down market orientation into three primary elements: customer orientation, competitor orientation, and interfunctional coordination, which taken together facilitate a firm's ability to create greater customer value (Huhtala et al, 2014; Hult et al, 2004; Narver and Slater, 1990). Indeed, market orientation becomes important as it emphasizes an organization's ability to, (1) continuously gather information on customer needs and competitor capabilities and (2) utilize the gathered information to build superior customer value (Slater & Narver, 1994). The central premise is that organizations who possess market oriented business cultures and proactively explore opportunities for creating greater value for customers, experience superior performance (Gebhardt, Carpenter, and Sherry, 2006; Huhtala et al, 2014 Narver and Slater, 1990).

Market orientation has been extensively studied in marketing literature (see Cano et al, 2004; Kirca et al, 2005; Liao et al, 2010) and its consequences can be roughly divided into four broader categories: firm performance, customer consequences, innovation consequences, and employee consequences (Kirca et al, 2005; Jaworski and Kohli, 1996). The literature holds that market oriented firms possess superior market sensing and customer linking capabilities, which induce superior performance (Jaakkola, 2012). For example, as firms continuously identify new customer needs and better understand the capabilities of their competitors, they are able to develop superior products and services that satisfy their customers' needs (Huhtala et al, 2014; Narver and Slater, 1990; Sandvik and Sandvik, 2003). This positive link between market orientation and improved firm performance has been widely studied and demonstrated in various studies in numerous organizational, industry, as well as geographic contexts (see Kirca et al, 2005 and Liao et al, 2010 for meta-analytical reviews).

However, while prior literature has focused on investigating market orientation in the context of inter-firm capabilities and financial performance, few studies have investigated its relationship in competitive dynamic contexts (Huhtala et al, 2016; Johnson et al, 2011; Morgan, 2012). Strategic marketing literature assumes that organizations create competitive advantages in comparatively static markets (Morgan, 2012), and little attention has been put into studying the dynamic contexts where market orientation is utilized to create superior firm performance (Huhtala et al, 2016; Soberman & Gatignon, 2005). Indeed, a market orientation culture could be used as a driver for obtaining temporary competitive advantages in the marketplace, as firms continuously aim to leverage customer and competitor knowledge to execute strategic actions (Noble et al, 2002). Nonetheless, some scholars have recently attempted to address this gap in the literature and examined market orientation and innovation intensity within competitive dynamic environments (Huhtala et al, 2016), taking steps to bridge literature between strategic management and strategic marketing. In addition to this, other researchers have also contributed to this gap by exploring market orientation and customer responsiveness (Pehrsson, 2012), and by investigating market orientation and entrepreneurial orientation (Roskos and Klandt, 2007) within competitive dynamic environments. However, as Ketchen & Hult (2011) proclaim, additional research is required to cross-fertilize strategic management and strategic marketing literature.

Indeed, in spite of the importance of market orientation literature, it is still noticeably missing from the field of competitive dynamics contexts (Huhtala et al, 2016; Johnson et al, 2011; Morgan, 2012). As market orientation studies the "business culture that most effectively and efficiently creates necessary behaviors for the creation of superior value for buyers and thus, continues superior performance for the business" (Narver & Slater, 1990, pp. 21) it could be used to explain why some competitive moves are more successful than others and how organizations develop temporal competitive advantage in the marketplace. Market orientation could strengthen the relationship between competitive behavior and firm performance, as market oriented firms possess superior knowledge to exploit more opportunities compared to competitors and are generally better prepared to aggressively defend market position against rival actions.

3. HYPOTHESES

3.1 Competitive Aggressiveness and Firm Performance

Competitive aggressive firms have been argued to gain first mover advantages by continuously exploring new ways to satisfy customer needs, exploiting a greater number of opportunities compared to rivals, and diminishing the effectiveness of competitor actions by launching timely responses to defend market positions (Chen & MacMillian, 1992; Ferrier et al, 1999; Nadkarni et al, 2016; Young et al, 1999). Empirical research has found that aggressive firms are able to improve profitability and market position through greater action speed and volume (Chen, Katila, and McDonald, 2010; Chen & Miller, 2012; Ferrier, Smith, and Grimm, 1999; Smith, Ferrier, and Ndofor, 2001) and some recent studies have suggested that this effect could be more prominent in fast changing environments compared to slow changing environments (Chen, Katila, and McDonald, 2010). Although achieving positive financial results through competitive aggressive behavior is not certain, prior studies have demonstrated that organizations that initiate more rapid actions than competitors are more likely to enhance performance and hamper the performance of their rivals (Chen et al, 2010b; Hambrick et al, 1996). Common competitive actions include, new product releases, service introductions, and pricing and advertising changes (Smith, Ferrier, Ndofor, 2001), which form the basis for outperforming competitors and generating temporary competitive advantages for the focal firm. Therefore, in line with previous prevalent research, the following hypothesis for this study is posed:

> **Hypothesis 1(H1):** *Competitive aggressiveness is positively associated with a firm's financial performance.*

3.2 Market Orientation, Competitive Aggressiveness, and Firm Performance

A market orientated organizational culture allows firms to create superior customer value, as firms (1) continuously gather information on customer needs and competitor capabilities and (2) utilize the gathered information to build superior customer value (Gebhardt, Carpenter, and

Sherry, 2006; Narver and Slater, 1990; Slater & Narver, 1994). The paper proposes that market orientation positively moderates the relationship between competitive aggressiveness and firm performance for two reasons. First, prior literature in competitive dynamics has highlighted the imperative role of “entrepreneurial discovery”, that is, the successful directing of resources towards initiatives that satisfy customer needs when market opportunities emerge (Hayek, 1945; Jacobson, 1992; Smith et al, 2001). Firms that are able to creatively introduce new products and services that satisfy customer needs enhance profits, create competitive advantages, and capture market position (Chen & Miller, 2012; Chen et al, 1999; Smith, Ferrier, and Ndofor, 2001). Market oriented business cultures could facilitate entrepreneurial discovery by encouraging firms to gather information on customer needs and explore opportunities for creating greater value for customers (Gebhardt, Carpenter, and Sherry, 2006; Huhtala et al, 2014 Narver and Slater, 1990). Indeed, as firms attempt to increasingly discover, understand, and satisfy underlying customer needs (Narver, Slater, and MacLachlan, 2004) they may gather superior knowledge on how to exploit more opportunities compared to competitors. Thus, market orientation could increase the probability of successful competitive actions and generate temporary competitive advantages that induce superior performance.

Second, prior literature highlights the importance of not only exploiting a greater number of opportunities compared to rivals, but also diminishing the effectiveness of competitor actions by launching timely responses to defend market positions (Chen & MacMillian, 1992; Ferrier et al, 1999; Nadkarni et al, 2016; Young et al, 1999). Firms need to be continuously aware of the competitive environment and rapidly respond to rival actions and threats with timely reactions (Chen et al, 2007; Smith et al, 2001). A fundamental aspect of market orientation is competitor orientation, that is, the understanding of a current and a potential rival’s strengthens, weaknesses, capabilities, and longer-term strategies (Narver and Slater, 1990). Competitor orientation can allow firms to develop offerings that are differentiated from a rival’s (Grinstein, 2008) or motivate firms to imitate a competitor’s offering (Lukas and Ferrell, 2000). In addition to this, market oriented organizations have been argued to more adaptable when market conditions change (Hult et al, 2005) and hence, could allow firms to respond rapidly to competitor actions. Indeed, a market oriented culture may ultimately alert organizations of potential threats in the horizon and allow them to react to threats in a swift manner, resulting in timely responses and successfully defending market position.

Together, this paper suggests the following hypothesis:

> **Hypothesis 2 (H2):** *Market orientation positively moderates the relationship between competitive aggressiveness and firm performance.*

3.3 Theoretical Framework

Following the theoretical background and hypothesis development of the study, figure 3.3.1 below presents the research's theoretical model. The model illustrates the hypothesized relationships between competitive aggressiveness and firm performance (H1), as well as the moderating effect of market orientation on this relationship (H2). The theoretical model include

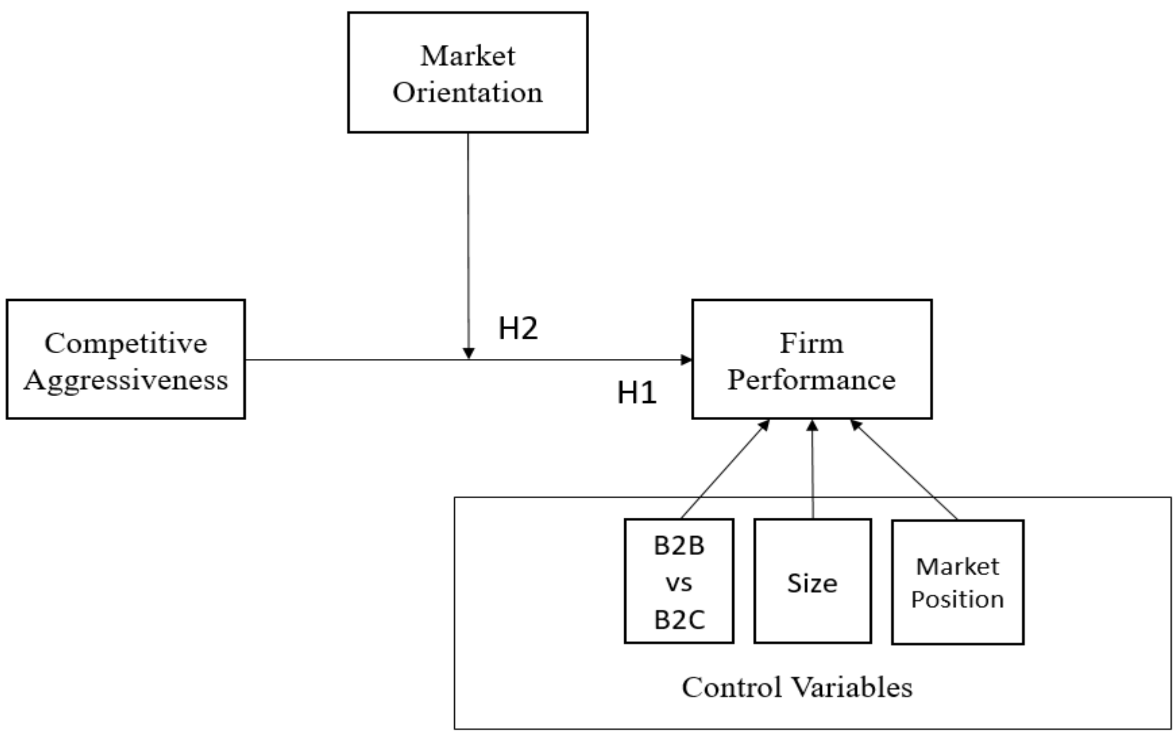

Figure 3.3.1: Theoretical Model

three control variables: market focus (B2B vs B2C), firm size, and market positon, to investigate the robustness of the model and to investigate whether contextual differences emerge from the studying hypotheses in different contexts.

4. METHODS

4.1 Research Setting

An empirical research is employed to investigate the hypothesized relationships among market orientation, competitive aggressiveness, and firm performance. The data were collected from three sets of StratMark survey data administered via a web-based survey targeting top management members in Finnish firms with over five employees. The objective of the StratMark survey is to investigate the current state of marketing and strategy in Finland. Derived from the Finnish commericial database provider of MicroMedia, the study covered the period between 2014-2018 (survey was administered 2014, 2016, and 2018) yielding a final-

Table 1: Sample Description

Characteristic	Sample %	Characteristic	Sample %
Phase of Market		**Firm Size**	
Emerging	10,01%	Small	64,2%
Growth	43,4%	Medium	23,5%
Mature	40,3%	Large	12,3%
Declining	6,2%		
Market Position		**Market**	
Only Firm	2,9%	B2C	29,4%
Leader	26,3%	B2B	70,6%
Challenger	40,8%		
Follower	30,0%		

sample 2008 useable responses after listwise deletion (Cheung, 2007) as well as excluding responses from respondents who answered that they were clearly the wrong person in their organization to answer the survey. This procedure was completed to guarantee that the final sample consisted of answers only from key respondents who have sufficient knowledge to answer the survey. A short description of the sample characteristics can be found in Table 1 above.

Within the final sample (n = 2008), I received responses from members of senior management positions (for example, directors, directors of the board, business unit heads, and the most common title of chief executive officer) operating in various Finnish companies and industries, such as information and communication technology, mining, financial services, and manufacturing. Moreover, the sample also reflects well the overall distribution of organizations in the Finnish economy, with more responses from business-to-business enterprises (70,6%) than business-to-consumer companies (29,4%).

The study tested non-response bias through examining the mean scores of included survey items for early and late respondents (Armstrong & Overton, 1977). This procedure was completed to examine whether there exists significant differences in the responses throughout the various years the survey was administered (Armstrong & Overton, 1977). Indeed, if non-response bias existed, it could jeopardize the validity of the results, as it would not allow the researcher to draw conclusions on the entire sample (Armstrong & Overton, 1977). However, since no significant differences were found among the groups at a 0.05 level, the results suggest that non-response bias was not an issue for the present research.

4.2 Measures

The measurement scales for market orientation, competitive aggressiveness, and firm performance, were derived from prior literature. First, Narver and Slater's (1990) 15 point MKTOR scale was adopted to measure the three elements of market orientation. Second, competitive aggressiveness was adapted from Chen et al (2010b), in which the measurement item was built from two items: action volume and action speed. Third, firm performance was measured as relative operating profit, return on investment, and return on assets (Hooley et al, 2005). For the purposes of this research, subjective measures were utilized for this study as they provide more flexibility in understanding complex dimensions of firm performance when various organizations and industries are included in the sample (Gonzalez-Benito and Gonzalez-Benito, 2005; Powell, 1992). The subjective measures of firm performance have been argued to help eliminate the effects of various business settings in national level data sets, and have been leveraged in numerous prior studies (Hooley et al, 2005; Huhtala et al, 2014; Jaakkola et al, 2016). Furthermore, as the sample included responses from business units and specific departments within the organization, leveraging objective corporate level statistics could have resulted in biased results (Huhtala et al, 2014).

Lastly, market focus (B2B vs B2C), firm size (as measured by amount of employees), and market position were leveraged as control variables in the general theoretical model to investigate robustness. Firstly, firm size was chosen as the first control variable, as scholars have argued that it has an influence on competition, whereby larger firms engage with simpler competitive moves than smaller organizations, and are less rapid to retaliate (Ferrier et al, 1999; Miller & Chen, 1996). Larger firms, however, often possess a reputational edge over smaller firms, which could influence consumer buying decisions (Chandy & Tellis, 2000). Secondly, market position has been suggested to effect competitive rivalry, as market leaders have been argued to adopt defensive competitive stances to ward off challengers, while conversely, market challengers adopt aggressive tactics endeavoring to usurp leaders (Derfus et al, 2008; Ferrier et al, 1999). Finally, market focus was selected, as the nature of rivalry may differ significantly for B2B and B2C firms, as B2B markets place greater emphasis on relationships (Zinkhan, 2002), and may not be as seduced by new product / service launches as B2C customers (Jaakkola et al, 2016).

4.3 Validity and Reliability

Following the gathering of data, validity and reliability of the measurement scales were tested with a Confirmatory Factory Analysis (CFA) using IBM AMOS. Reliability and validity tests are carried out to ensure that results are not subjected to any issues, and to evaluate whether the chosen constructs fit the theorized model (Hair et al, 2010). Using measurement values proposed by Anderson and Gerbing (1988) the CFA model yielded acceptable levels of general fit and unidimensionality: Goodness of Fit index (GFI) = .943, Root Mean Square of Approximation (RMSEA) = .064, Tucker Lewis Index (TLI) = .926, Comparative Fit Index (CFI) = .939, and SRMR = .0387. Measurement items and their consequent factor loadings can be found in Appendix A. Shortly, however, the theorized constructs reflect the latent variables well, with factor loadings above the minimum value of 0.5 (Uden et al, 2015), suggesting adequate fit for the model.

Reliability measures reveal good internal consistency with Composite Reliabilities (CR) values above the recommended threshold of 0.6 (Bagozzi & Yi, 1988) and Average Variance Extracted (AVE) values greater than the benchmark of 0.50 (Zhou et al, 2005). In order to establish the discriminant validity of the measurement scales, Fornell and Larcker's (1981) procedure was followed, which compares the square root of the AVE with the standardized correlations of the three constructs of competitive aggressiveness, market orientation, and firm performance. Squared AVE values were greater than their corresponding correlations, yielding sufficient support for discriminant validity of the model (Fornell and Larcker, 1981).

Table 2: Means, Standard Deviations, CR, AVE, Square Roots of AVE, and Correlations

					Correlations		
Construct	**Mean**	**S.D.**	**CR**	**AVE**	**1**	**2**	**3**
1. Competitive Aggressiveness	4.67	1.15	.87	.54	**.73**		
2. Market Orientation	5.38	.82	.95	.87	.21	**.93**	
3. Firm Performance	4.91	1.66	.92	.79	.07	.032	**.89**

CR = Composite Reliability, AVE = Average Variance Extracted, Square Roots of AVE in diagonal bold.

Lastly, to investigate common method bias, a Harman one-factor analysis was carried out. The unrotated principal component factor analysis yielded three factors that explained 56,5% of the total variance, with no distinct factor accounting for more than 50% of the variance in the sample. This reveals that common method bias did not threaten the validity of the results (Podsakoff and Organ, 1986). Overall, this subchapter has established that there are no validity or reliability concerns with the general model, and that chosen constructs fit the theorized model well.

5. RESULTS

5.1 Market Orientation, Competitive Aggressiveness, Firm Performance.

To investigate the hypothesized relationships among market orientation, competitive aggressiveness and firm performance, a series of Structural Equation Model (SEM) analyses were carried out with IBM AMOS. Firstly, the research investigated the relationship between competitive aggressiveness and firm performance. The results of the study reveal that the direct effect of competitive aggressiveness was highly significant ($\beta = .0831$, $p < .01$). This result is in line with prior literature where empirical research has found that aggressive firms are able to improve profitability and market position through greater action speed and volume (Chen, Katila, and McDonald, 2010; Chen & Miller, 2012; Ferrier, Smith, and Grimm, 1999; Smith, Ferrier, and Ndofor, 2001). Hence, consistent with extant literature, H1 was supported in this research.

Secondly, the study endeavored to examine whether there exists a moderating effect of market orientation on the relationship between competitive aggressiveness and firm performance. The research found support for this claim, finding that market orientation positively influences this relationship ($\beta = 0.048$, $p < 0.05$) providing support for H2. This may be because firms that are able to creatively introduce new products and services that satisfy customer needs enhance profits, create competitive advantages, and capture market position (Chen & Miller, 2012; Chen et al, 1999; Smith, Ferrier, and Ndofor, 2001).

In order to gain a more comprehensive insight into these relationships, the interaction effect between market orientation and competitive aggressiveness was plotted in Figure 5.1.1 below with firm performance being the dependent variable. This simple slope test followed the procedure outlined by Dawson (2014) and was used to evaluate the moderating effect of market orientation on the relationship between competitive aggressiveness and firm performance by splitting the moderator into two groups – high market orientation (one standard deviation above the mean) and low market orientation (one standard deviation below the mean). As can be seen from the figure 5.1.1 below, when market orientation is high, the positive effect between firm

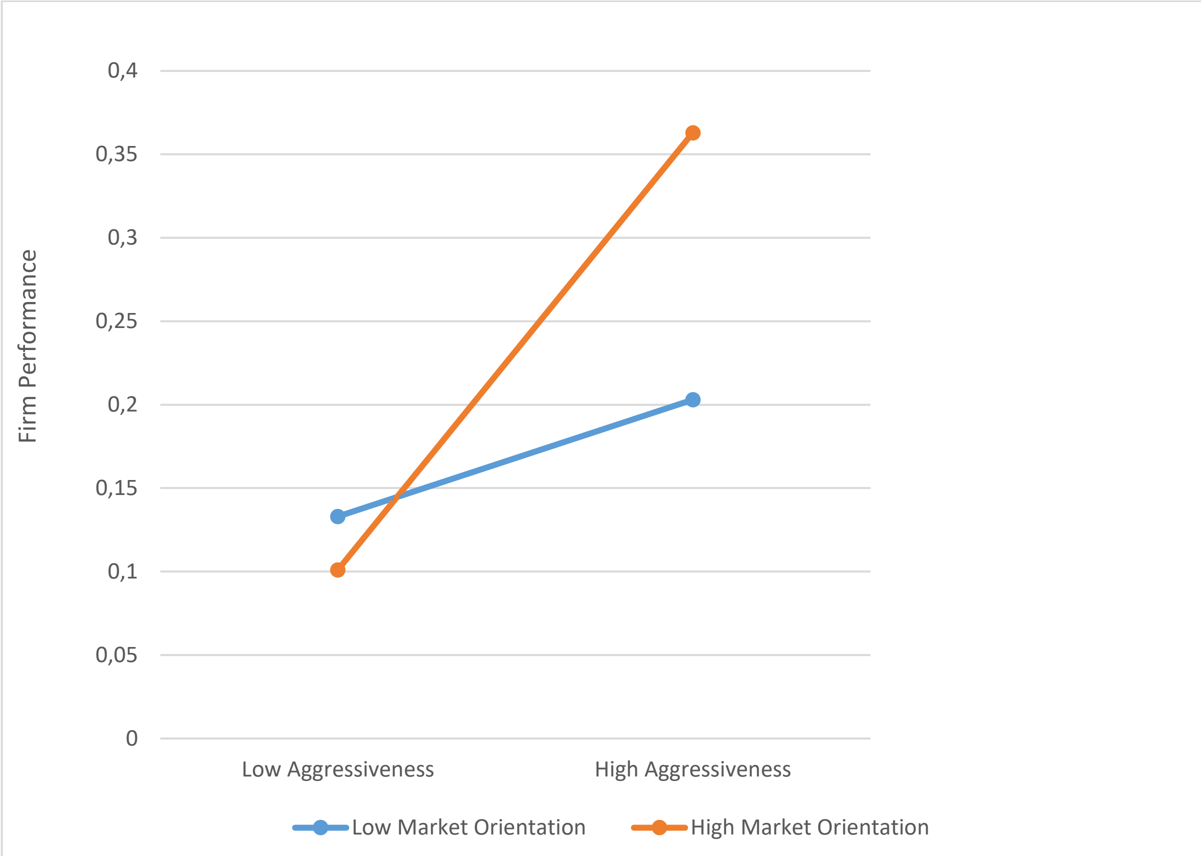

Figure 5.1.1 Moderating effect of Market Orientation on the relationship between Competitive Aggressiveness and Firm Performance.

performance and competitive aggressiveness is stronger than when market orientation is low.

5.2 Robustness of Findings: Size, Market Position, and Market Focus

Robustness and context-specificity of the model was investigated by examining firm size, firm market (B2C vs B2B), and firm market position. The direct effect of competitive aggressiveness on firm performance and the moderation effect of market orientation was examined in all specific contexts. As indicated in Table 3, the positive effect of competitive aggressiveness on firm performance was robust in B2C settings but not in B2B contexts. This may be because B2B markets are more concerned about relationships (Zinkhan, 2002) and are not as seduced by new product / service launches as B2C customers. Furthermore, the effect of competitive aggressiveness on firm performance was found to be significant only for smaller firms (1-50 employees), rather than being robust in all size contexts. A potential reason for this may be that as a firm grows larger in size, they become less responsive due to increased formalization and rule governed cultures (Barnett & McKendrick, 2004; Weber, 1946), and hence, less able to adapt in the face of competition. Finally, the direct effect of competitive aggressiveness on firm performance was examined among firms with different market positions. The results suggest that this relationship is robust for market leaders while competitive aggressiveness negatively affects firm performance among organizations that are the only players in the market.

Table 3: Robustness of Findings

Dependent Variable: Firm Performance.		
Predictor Variable	**Competitive Aggressiveness**	**Market Orientation * Competitive Aggressiveness**
	β (p-value)	**β (p-value)**
Market Focus		
B2C	**.151 (.003)**	-.018 (.660)
B2B	.059 (.070)	.046 (.084)
Firm Size		
Small (1-50)	**.067 (.021)**	**.066 (.007)**
Medium (50-250)	.088 (.057)	-.014 (.739)
Large (>250)	.088 (.241)	.086 (.128)
Market Position		
Only Firm	**-.258 (.039)**	.053 (.507)
Leader	**.140 (.003)**	-.024 (.532)
Challenger	.061 (.117)	.042 (.202)
Follower	.037 (.347)	**.082 (.014)**

In addition to this, the moderating effect of market orientation on the relationship between competitive aggressiveness and firm performance was investigated in the aforementioned contexts. The results indicate that the positive effect of market orientation is only statistically significant for small firms and market followers. Indeed, larger firms may be disadvantaged in their ability to sense the market environment due to hampered contact between senior managers and customers (Pelham, 2000), while smaller firms can better leverage their smaller position to constantly monitor threats and opportunities to thrive in the market (Aldrich and Auster, 1986). Moreover, market followers, such as smaller startups looking to disrupt established industries, could be focused on trying to satisfy underlying customer needs and benefit from their close relationship with customers (Barnett & McKendrick, 2004).

6. DISCUSSION

6.1 Theoretical Implications

This research has studied organizational contingencies that have an effect on firm competitive strategy and its subsequent relationship on organizational performance. Specifically, the study has examined the moderating effect of market orientation on the relationship between competitive aggressiveness and firm performance. By doing so, the study contributes to the field of competitive dynamics by extending the research to include market orientation and its effect on financial performance. More precisely, this paper contributes to the literature in three key ways. First, although extant literature has examined the effect of competitive aggressiveness on firm performance, most of these studies have been limited to a single industry, predominantly leveraging U.S. centric data samples (Chen & Miller, 2012; Smith, Ferrier, Ndofor, 2001). Researchers have argued for the need to explore the applicability of competitive dynamics concepts in economies with different cultures and histories (Chen et al, 2010a). This research attempts to address these issues by bringing the conversation to the Finnish context and analyzing firms across various industries, shedding light into a relatively unexplored context in competitive dynamics research.

Second, this paper has explicated the positive moderating role of market orientation between competitive aggressiveness and firm performance, and responds to calls to integrate market orientation within broader models in strategic management literature (Hult, Ketchen, and Slater, 2005; Ketchen & Hult, 2011; Morgan, 2009). The study demonstrates how market orientation can play an imperative part in helping firms take full advantage of competitive aggressive strategies in order to achieve superior performance. Indeed, as firms attempt to increasingly discover, understand, and satisfy underlying customer needs (Narver, Slater, and MacLachlan, 2004) they may gather superior knowledge on how to exploit more opportunities compared to competitors and are generally better equipped to diminish the effectiveness of competitor actions by launching timely responses to defend market position (Chen & MacMillian, 1992; Ferrier et al, 1999; Nadkarni et al, 2016; Young et al, 1999). Thus, taken together, market orientation could increase the probability of successful competitive actions and generate temporary competitive advantages that induce superior performance.

Third, the research extends studies in the field of competitive dynamics by examining robustness of findings in regard to an organization's market focus, size, and market position. The results suggest that all studied effects were context dependent with regard to organizational characteristics and industry type. Competitive aggressiveness was significantly associated with a firm's financial performance only in four out of the nine contexts: B2C markets, small firm size (1-50 employees), market leaders, and had a negative association with firms who were the only players in the market. While the direct effect of competitive aggressiveness on firm performance for smaller companies has been shown in previous studies (e.g. Chen & Hamrick, 1995) the positive effect of competitive aggressiveness for market leaders is somewhat surprising, as scholars have argued that market leaders tend to adopt defensive and lethargic competitive stances to ward off challengers (Ferrier et al, 1999; Miller & Chen, 1996). In addition this, the moderating effect of market orientation was found to be significant only in two out of the nine contexts: small firm size and market followers. This may suggest smaller organizations can better leverage their smaller position to constantly monitor threats and opportunities to thrive in the market (Aldrich and Auster, 1986). Hence, general conclusions that are drawn from the broader models may be slightly misleading, as findings were not robust in most contexts. This however, may also hold true with numerous studies in the extant competitive dynamics literature and a more extensive research would be needed to investigate the various contextual differences.

6.2 Managerial Implications

This research also holds numerous relevant implications and insights from a managerial perspective. Consistent with extant literature, the findings find support for the notion that competitive aggressiveness is positively associated with financial performance, however, the research suggests that organizational characteristics and industry types play a significant role in determining performance. Managers need to recognize the contextual differences before adopting competitive aggressive strategies, as aggressive strategies may even negatively relate to firm performance with the case of firms with near monopoly status. Indeed, competitive aggressiveness was found to be especially relevant for smaller firms and market leaders in B2C markets, and managers in these areas should consider exploiting more advantages compared to competitors, diminish the advantages of their rivals, and retaliate against competitor actions (Davis et al, 2009; Katila, Chen, and Piezunka, 2012, Nadkarni et al, 2016). Additionally, models such as the awareness-motivation-capability (AMC) framework could also be leveraged to examine and predict the potential reactions from rivals, to be better understand the effectiveness of competitive moves (Chen, 2012; Grimm, Lee, and Smith, 2006).

Lastly, the results indicate that a market orientation business culture seems to strengthen the relationship between aggressiveness and financial performance, particularly in the context of smaller firms and market followers. While the research does not conclude that market orientation itself relates to financial performance, the study suggests that firm performance can be enhanced through the interaction between market orientation and competitive aggressiveness. Managers may wish to adopt market oriented business cultures to fully gain the benefits of aggressive strategies by (1) continuously gathering information on customer needs and competitor capabilities and (2) utilizing the gathered information to build superior customer value (Slater & Narver, 1994). This may require a fundamental shift in organizational culture and marketing capabilities, however, the results of the study suggest that building a market oriented business culture may be a worthwhile investment.

6.3 Limitations and Further Research

This research has endeavored to establish the first steps in modeling market orientation within the context of competitive aggressiveness firm performance, leaving plenty of room to expand upon this study. As this study focused on one aspect of organizational culture, future research could examine the effects of other cultural characteristics of firms, such as entrepreneurial orientation (Lumpkin & Dess, 1996) and learning orientation (Sinkula et al, 1997) to gain a more comprehensive understanding of financial performance mechanisms in the field of competitive dynamics.

Secondly, the findings of the study pertain to a somewhat narrowly defined conceptualization of competitive aggressiveness, which was constructed by two measurement items of action volume and action speed (Chen et al, 2010b). Future studies could investigate how other conceptualizations of competitive aggressiveness might relate to firm financial performance, including for example, attack complexity and attack unpredictability (Ferrier, 2001) into the measurement item.

Third, as increasingly more business activity is occurring online and on digital platforms, what exactly constitutes as competitive aggressiveness in these environments remain unanswered. Although research has recognized the imperative nature of information systems in undertaking competitive moves (Gnyawali et al, 2010) a comprehensive understanding of what different types of competitive moves occur in digital environments and how they relate to firm performance are missing. In future research, studies could attempt to address this gap in the literature.

Lastly, although the use of subjective business performance measures allowed this research to study effects across different industries in the national level dataset, further studies consisting of organizations within a defined industry could and should include objective performance data.

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8. APPENDIX

Appendix A. Measurement scales and factor loadings

Source	Construct	Items	Loadings
Narver & Slater (1990)	Customer Orientation	Our business objectives are driven primarily by customer satisfaction	0.67
		We constantly monitor our level of commitment and orientation to serving customer needs	0.74
		Our strategy for achieving competitive advantage is based on understanding customer needs	0.70
		Our strategies are driven by our beliefs about how we can generate greater value for customers	0.63
		We focus a lot of attention to after sales service	0.60
Narver & Slater (1990)	Competitor Orientation	Our sales employees regularly share information within our company about competitor's strategies	0.57
		We quickly respond to competitive actions that threathen us	0.65
		Our top management often discusses strengths and strategies of competitors	0.66
Narver & Slater (1990)	Inter-functional Coordination	We openly communicate about successful and unsuccesful customer encounters across all functions	0.63
		All of our functions are integrated to serving the needs of our target market	0.71
		All managers understand how everyone in the organization can contribute in creating customer value	0.72
Chen et al (2010)	Competitive Aggressiveness	Expanding into new markets (volume)	0.54
		New product launches (volume)	0.80
		New service launches (volume)	0.80
		Expanding into new markets (speed)	0.58
		New product launches (speed)	0.89
		New service launches (speed)	0.72
Hooley et al (2005)	Firm Performance	Relative profit	0.94
		Relative Return on Investment	0.99
		Relative Return on Assets	0.71